

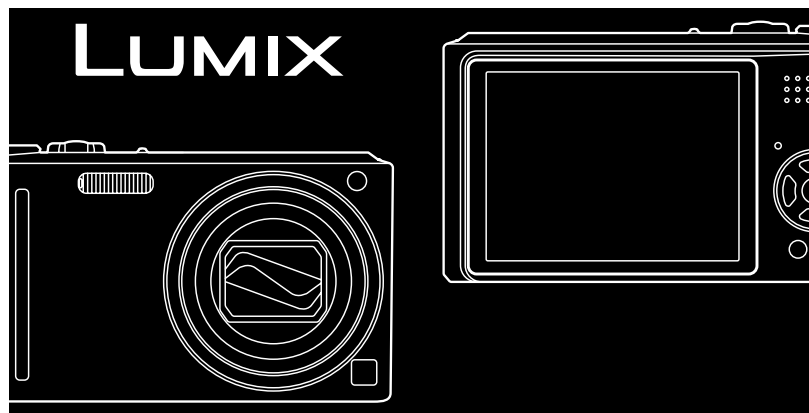


Panasonic®



Basic Operating Instructions Digital Camera

Model No. **DMC-TZ7/DMC-ZS3**
DMC-TZ6/DMC-ZS1



Before use, please read these instructions completely.
All descriptions and logos pertaining to HDMI, VIERA Link,
AVCHD Lite, and Dolby pertain to DMC-TZ7/DMC-ZS3 only.



HDMI™
HIGH DEFINITION MULTIMEDIA INTERFACE

VIERA
Link

**Please also refer to Operating
Instructions (PDF format) recorded on
the CD-ROM containing the Operating
Instructions (supplied).**

You can learn about advanced operation methods and check
the Troubleshooting.



GC GJ SG GH

VQT1Z96-1
M0209KZ1039

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- USE ONLY THE RECOMMENDED ACCESSORIES.
- DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Carefully observe copyright laws.

Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

- Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.

- HDMI, the HDMI Logo and the High-Definition Multimedia Interface are the registered trademarks or trademarks of HDMI Licensing LLC.
- HDAVI Control™ is a trademark of Panasonic Corporation.
- SDHC Logo is a trademark.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

- Do not heat or expose to flame.
- Do not leave the battery in an automobile exposed to direct sunlight for a long period of time with doors and windows closed.

Warning

Risk of fire, explosion and burns. Do not disassemble, heat above 60 °C or incinerate.

Product Identification Marking is located on the bottom of units.

How to replace the fuse

The location of the fuse differ according to the type of AC cable (figures A and B). Confirm the AC cable fitted and follow the instructions below. Illustrations may differ from actual AC cable.

1. Open the fuse cover with a screwdriver.

Figure A

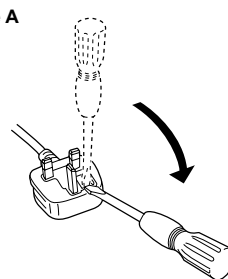
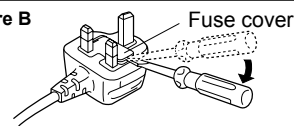


Figure B

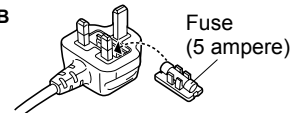


2. Replace the fuse and close or attach the fuse cover.

Figure A



Figure B



-If you see this symbol-

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.



About the battery charger

CAUTION!



- DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.

- Do not use any other USB connection cables except the supplied one.
- Do not use any other AV cables except the supplied one.
- Do not use any other cables except a genuine Panasonic HDMI mini cable (RP-CDHM15/RP-CDHM30; optional). (DMC-TZ7GC/DMC-TZ7GJ/DMC-ZS3GH)
- Ensure that the AC adaptor and Multi Conversion Adaptor are purchased as a set. The camera is not available if you use only either of them.
- Some accessories cannot be available in some countries or area.

This manual provides operating instructions for the DMC-TZ7/DMC-TZ6/DMC-ZS3/DMC-ZS1. The appearance, specifications, and screen display vary depending on the model that is used. The descriptions in this manual are primarily based on the DMC-TZ7/DMC-ZS3. Details about functions specific to each model are indicated by symbols added to headings or at the end of descriptions, etc.

(Example)

Functions available in the DMC-TZ7/DMC-ZS3 only:  

Functions available in the DMC-TZ6/DMC-ZS1 only:  

When in use

Camera may become warm if used for long periods of time, but this is not a fault.

- To avoid jitter, use a tripod and place in a stable location. (Especially when using telescopic zoom, lower shutter speeds, or self-timer)
- **Keep the camera as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).**
 - If you use the camera on top of or near a TV, the pictures and sound on the camera may be disrupted by electromagnetic wave radiation.
 - Do not use the camera near cell phones because doing so may result in noise adversely affecting the pictures and sound.
 - Recorded data may be damaged, or pictures may be distorted, by strong magnetic fields created by speakers or large motors.
 - Electromagnetic wave radiation generated by microprocessors may adversely affect the camera, disturbing the pictures and sound.
 - If the camera is adversely affected by electromagnetic equipment and stops functioning properly, turn the camera off and remove the battery or disconnect AC adaptor (DMW-AC5G; optional). Then reinsert the battery or reconnect AC adaptor and turn the camera on.

Do not use the camera near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, the recorded pictures and sound may be adversely affected.

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Before use

Read first

■ Do a test shot first!

Check first to see if you can take pictures and record sounds (motion pictures/ pictures with audio) successfully.

■ We will not compensate for failed/ lost recording or for direct/indirect damage.

Panasonic will not provide compensation even if damage is caused by faults with camera or card.

■ Certain pictures cannot be played back

- Pictures edited on a computer
- Pictures taken or edited on a different camera
(Pictures taken or edited on this camera may also not be able to be played back on other cameras)

■ Software on the CD-ROM supplied

The following actions are prohibited:

- Making duplicates (copying) for sale or rent
- Copying onto networks

To prevent damage and faults

■ Avoid shocks, vibration, and pressure

- Avoid exposing the camera to strong vibration or shock; e.g. dropping or hitting the camera, or sitting down with the camera in your pocket.
(Attach hand strap to avoid dropping camera. Hanging any items other than the supplied hand strap from the camera can apply pressure against it.)
- Do not press the lens or the LCD monitor.

■ Do not get the camera wet or insert foreign objects This camera is not waterproof.

- Do not expose the camera to water, rain, or seawater.
(If camera gets wet, wipe with a soft, dry cloth. Wring cloth thoroughly first if wet with seawater, etc.)
- Avoid exposing lens and socket to dust or sand, and do not allow liquids to leak into gaps around buttons.

■ Avoid condensation caused by sudden changes in temperature and humidity

- When moving between places of different temperature or humidity, place camera into a plastic bag and allow to adjust to conditions before use.
- If the lens clouds up, switch off the power and leave for about two hours to allow camera to adjust to conditions.
- If the LCD monitor clouds up, wipe with a soft, dry cloth.

LCD monitor characteristics

Extremely high precision technology is employed to produce the LCD monitor screen. However there may be some dark or bright spots (red, blue or green) on the screen. This is not a malfunction.

The LCD monitor screen has more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. The spots will not be recorded on pictures on the built-in memory or a card.

Unit temperature

The camera may become warm during use. (Especially grip area, etc.) This does not cause a problem with the performance or quality of the camera.



Grip area

Before use

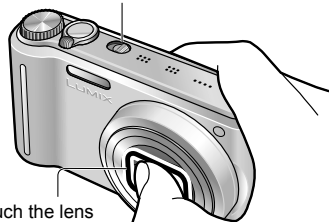
(Continued)

To prevent damage and faults

■ Lens

- If lens is dirty:
Images may appear slightly white if lens is dirty (fingerprints, etc.).
Turn the power on, hold the extracted lens barrel with your fingers, and gently wipe the lens surface with a soft, dry cloth.
- Do not leave in direct sunlight.

Camera ON/OFF switch



Do not touch the lens barrier, as this may damage lens. Be careful when removing camera from bag, etc.

■ When using tripod

- Do not apply excessive force or tighten screws at an angle (may damage camera, screw hole, or label.)
- Ensure that the tripod is stable.
(Read the tripod's instruction manual.)

■ When transporting

- Switch off power.
We recommend using a genuine leather case (DMW-CT3, optional).

Standard Accessories

Part numbers are as of February 2009

☐ Battery Pack

DMW-BCG10E
Charge the battery before use.
(referred to in this manual as 'battery')

☐ Battery Charger

DE-A66B
(DMC-TZ7(GC/GJ), DMC-TZ6GC, DMC-ZS3GH, DMC-ZS1GH)
DE-A66E (DMC-TZ7SG)
(referred to in this manual as 'charger')

☐ Battery Carrying Case

VGQ0E45

☐ AC Cable

K2CT3CA00004
(DMC-TZ7GC, DMC-TZ6GC, DMC-ZS3GH, DMC-ZS1GH)
(Hong Kong Special Administrative Region of China and Saudi Arabia)
K2CQ2CA00006
(DMC-TZ7GC, DMC-TZ6GC)

K2CP2YY00001
(DMC-TZ7GJ)

K2CA2CA00019
(DMC-TZ7SG)

☐ Hand Strap

VFC4297

☐ USB Connection Cable

K1HA14AD0001

☐ AV Cable

K1HA14CD0001

☐ CD-ROM Operating Instructions

VFF0471
(DMC-TZ7(GC/GJ), DMC-TZ6GC, DMC-ZS3GH, DMC-ZS1GH)
VFF0470 (DMC-TZ7SG)

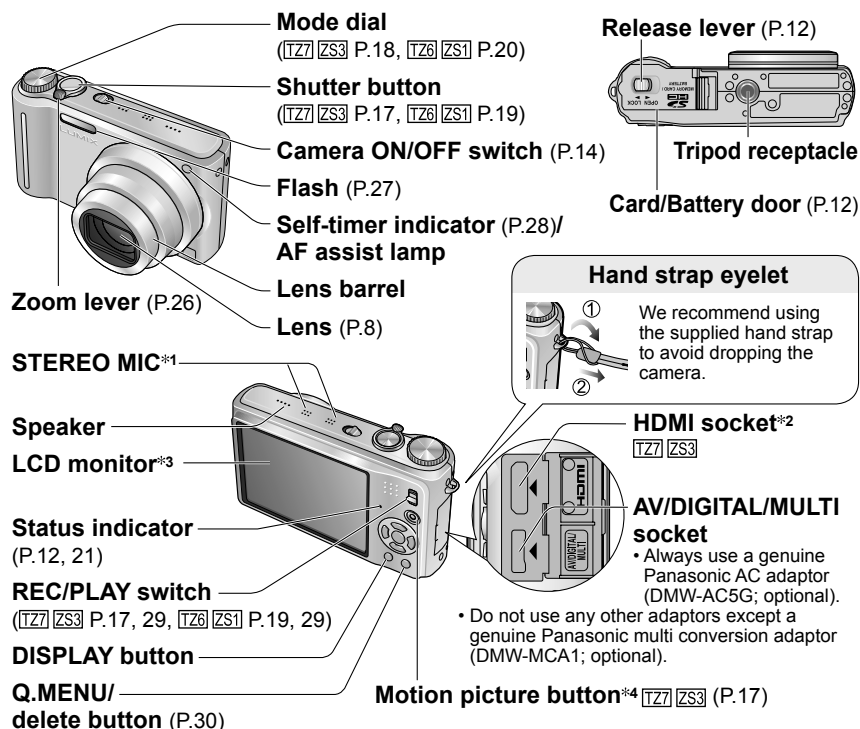
☐ CD-ROM Software

- Install software on your computer to use it.

- Please dispose of all packaging appropriately.

- Cards are optional. You can record or play back pictures on the built-in memory when you are not using a card. (P.13)
- Consult the dealer or your nearest servicentre if you lose the supplied accessories. (You can purchase the accessories separately.)

Names of parts



Cursor button

MENU/SET

(menu display/set/finish) (P.15)

Left cursor button (◀)

- Self-timer (P.28)

Down cursor button (▼)

- Macro mode
- AF Lock (AF tracking) (P.23)

Up cursor button (▲)

- Exposure compensation
- Auto bracket
- Multi aspect*2 (TZ7 ZS3)
- White balance fine adjustment
- Right cursor button (▶)
- Flash (P.27)

- In this manual, the button that is used is shaded or indicated by ▲ ▼ ▶ ◀.

- The appearance, specifications, and screen display vary depending on the model that is used. The descriptions in this manual are primarily based on the DMC-TZ7/DMC-ZS3.

*1 DMC-TZ6/DMC-ZS1 has only one microphone (Monaural).

*2 This is not available in the DMC-TZ6/DMC-ZS1.

*3 The size in the DMC-TZ6/DMC-ZS1 is different. *4 DMC-TZ6/DMC-ZS1 does not have this button.

Charging battery

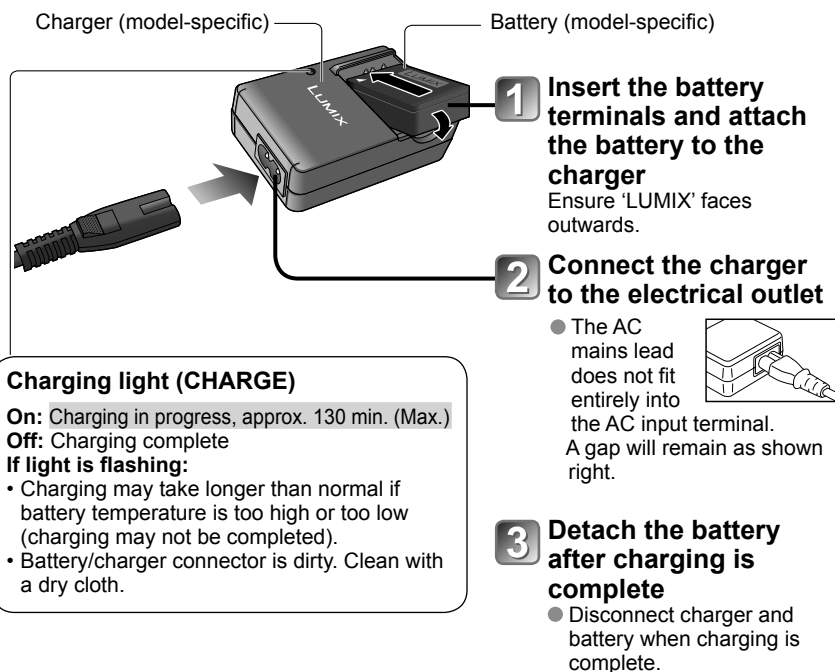
Always charge before first use! (not sold pre-charged)

■ About batteries that you can use with this unit (as of February 2009)

The battery that can be used with this unit is DMW-BCG10E.

It has been found that counterfeit battery packs which look very similar to the genuine product are made available to purchase in some markets. Some of these battery packs are not adequately protected with internal protection to meet the requirements of appropriate safety standards. There is a possibility that these battery packs may lead to fire or explosion. Please be advised that we are not liable for any accident or failure occurring as a result of use of a counterfeit battery pack. To ensure that safe products are used we would recommend that a genuine Panasonic battery pack is used.

- Use the dedicated charger and battery.
- This camera has a function identifying batteries that can be used, and this function is compatible with the dedicated battery (DMW-BCG10E). (Batteries not compatible with this function cannot be used.)



Charging light (CHARGE)

On: Charging in progress, approx. 130 min. (Max.)

Off: Charging complete

If light is flashing:

- Charging may take longer than normal if battery temperature is too high or too low (charging may not be completed).
- Battery/charger connector is dirty. Clean with a dry cloth.

■ The battery life

Figures may be reduced if intervals between recordings are longer; if flash, zoom, or LCD MODE are used frequently; or in colder climates (depends on actual usage).

Number of recordable pictures	Approx. 300 pictures [TZ7] [ZS3] Approx. 320 pictures [TZ6] [ZS1]	By CIPA standard in normal picture mode
Recording time	Approx. 150 min [TZ7] [ZS3] Approx. 160 min [TZ6] [ZS1]	

● Recording conditions by CIPA* standard

* CIPA is an abbreviation of [Camera & Imaging Products Association].

- Temperature 23 °C, humidity 50 %
- LCD monitor ON
- (The number of recordable pictures decreases in AUTO POWER LCD, POWER LCD, and HIGH ANGLE [TZ6] [ZS1] mode)
- Using Panasonic SD memory card (32 MB)
- Using the supplied battery
- NORMAL PICTURE mode
- First picture taken 30 sec. after power turned on (STABILIZER 'AUTO')
- 1 picture taken per 30 sec.
- Full flash used for every other picture
- Zoom operation for each picture (max. W → max. T, or max. T → max. W)
- Power turned off after each 10 pictures, battery allowed to cool

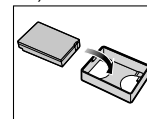
Number reduced if intervals longer – e.g. to approx. one quarter (75 pictures [TZ7] [ZS3] / 80 pictures [TZ6] [ZS1]) for 2-minute intervals under the above conditions.

Playback time	Approx. 300 min
Recording time capacity (motion pictures)	Approx. 90 min [TZ7] [ZS3]

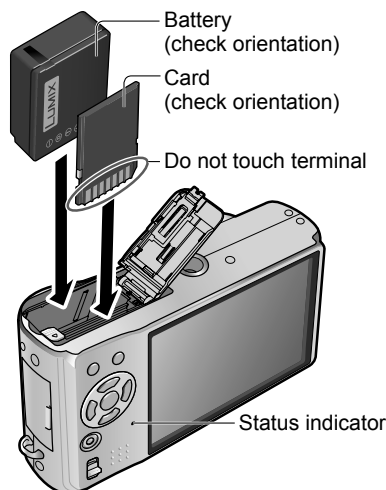
- Continuous recording with 'REC MODE' set to 'AVCHD Lite' and 'REC QUALITY' to 'SH' Available recording time varies according to usage conditions and intervals between recording.*

* Available recording time will be reduced when the camera is switched 'ON'/'OFF', recording is stopped/started, or zoom operations are used frequently.

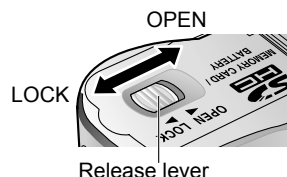
- Battery will be warm during charging and for some time thereafter.
- Battery will run out if not used for long periods of time, even after being charged.
- Charge the battery with the charger indoors (10 °C - 35 °C).
- Frequently charging up battery is not recommended. (Frequently charging battery reduces maximum usage time and can cause battery to expand.)
- Do not disassemble or modify the charger.
- If available battery power is significantly reduced, battery is reaching end of lifespan. Please purchase a new battery.
- The battery charger is in the standby condition when the AC power supply cord is connected. The primary circuit is always "live" as long as the power cord is connected to an electrical outlet.
- When charging
 - Remove any dirt on connectors of charger and battery with dry cloth.
 - Keep at least 1 m away from AM radio (may cause radio interference).
 - Noises may be emitted from inside of charger, but this is not a fault.
 - Always remove from mains socket after charging (up to 0.1 W consumed if left in place).
- Store battery in battery carrying case after use.
- Do not use if damaged or dented (especially connectors), e.g. by dropping (can cause faults).



Inserting battery and card



- 1 Set the camera ON/OFF switch to OFF
Slide to the 'OPEN' position and open the lid



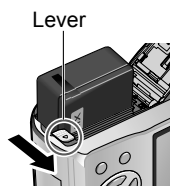
- 2 **Completely insert battery and card**
(both click into place)

- 3 **Close lid**
Slide to the 'LOCK' position.

■ To remove

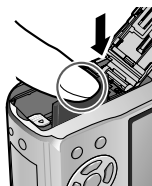
• To remove battery:

move lever in direction of arrow.



• To remove card:

press down in centre.



- Always use genuine Panasonic batteries (DMW-BCG10E).
- If you use other batteries, we cannot guarantee the quality of this product.
- Do not remove card or battery while power is 'ON' or while status indicator is on (Camera may cease operating correctly, or card/recorded contents may be damaged).
- The reading/writing speed of a MultiMediaCard is slower than an SD memory card. When a MultiMediaCard is used, the performance of certain features may be slightly slower than advertised.
- Keep the Memory Card out of reach of children to prevent swallowing.

Picture save destination (cards and built-in memory)

Pictures will be saved to a card if one is inserted, or to the built-in memory if not.

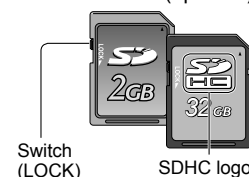
■ Compatible memory cards (optional)

The following SD standard-based cards (Panasonic brand recommended)

- SD memory cards (8 MB - 2 GB)
- SDHC memory cards (4 GB - 32 GB)
- Can only be used with devices compatible with SDHC memory cards. (Always read your device's operating instructions before proceeding)
- Cards of over 4 GB may only be used if they have the SDHC logo.

- Please reformat the card with this camera if it has already been formatted with a computer or another device.
- If the switch on the card is set to 'LOCK', operations such as formatting, recording, and deleting cannot be performed.
- MultiMediaCards may also be used (for pictures only)

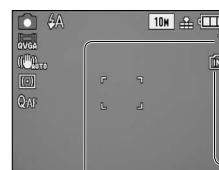
SD memory card/
SDHC memory card
(optional)



■ Built-in memory (approx. 40 MB)

- Built-in memory is slower than SD memory card.
- 'QVGA' in 'REC QUALITY' only can be available to record motion pictures in the built-in memory.
- Clipboard pictures are saved to built-in memory.
- Pictures may be copied between cards and the built-in memory.

Remaining battery and memory capacity



Remaining battery (only when using battery)

(flashes red)

If the battery mark flashes red (or status indicator flashed when LCD monitor is off), recharge or replace battery. (P.10)

Displayed when no card inserted (pictures will be saved to built-in memory)

Pictures remaining

When in operation

(Card) or (Built-in memory) are illuminated red.

This means that an operation is in progress, such as the recording, reading, deleting, or formatting of pictures. Do not turn off the power or remove the battery, card, or AC adaptor (optional) (this may cause damage to or loss of data).

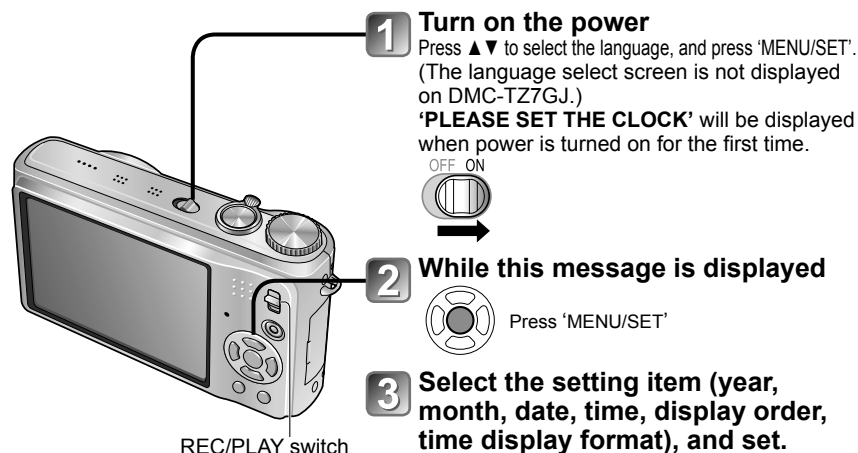
Do not subject the camera to vibrations, impact, or static electricity. Should any of these cause camera operation to be terminated, attempt to perform the operation again.

- It is recommended that you copy important pictures to your computer (as electromagnetic waves, static electricity, or faults may cause data to be damaged).
- For model numbers and types, see <http://panasonic.co.jp/pavc/global/cs> (This Site is English only.)

Setting the clock

(The clock is not set when the camera is shipped.)

Set REC/PLAY switch to before turning on power.



To change time setting

Select 'CLOCK SET' from SETUP menu, perform **3** and **4**.

- Clock settings will be saved for approx. 3 months even after battery is removed, provided a fully-charged battery was installed in camera for the 24 hours beforehand.

■ To set local time at travel destination

➡ 'WORLD TIME'

4 Set



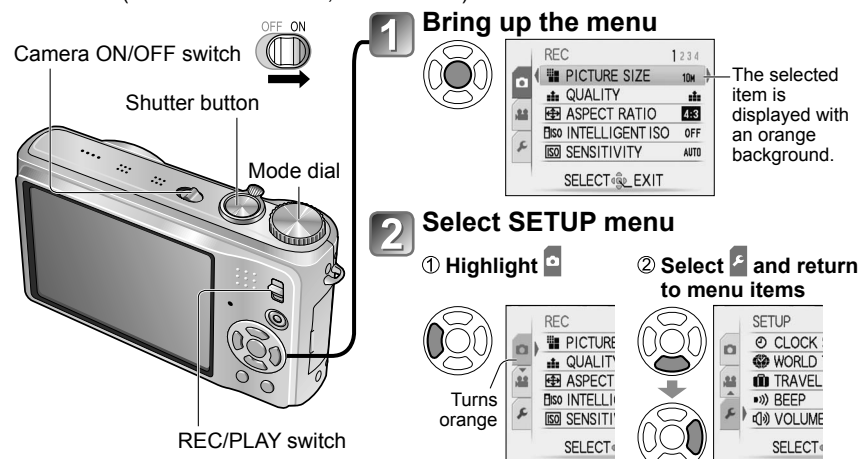
- Turn on power again and check time display.
(Time and date can be displayed by pressing 'DISPLAY' several times.)

- Failure to set the date and time will cause the date/time to be improperly printed when printing pictures in digital photo centre or when using 'TEXT STAMP'.
- Year can be set between 2000 and 2099.
- After the time has been set, the date can be printed correctly even if the date is not displayed on the camera screen.

Using menus

To enable optimum usage of the camera, various functions can be activated and setting can be changed from the menus.

(Example) Change 'VOLUME' in SETUP menu when in NORMAL PICTURE mode.
(REC/PLAY switch , Mode dial)



■ To restore default settings
➡ 'RESET'

3 Select the item



4 Select the setting



5 Finish

- When the REC/PLAY switch is set to , menu can be closed with a half-press of the shutter button.

- Settings display may vary according to items.

Using menus (Continued)

To enable optimum usage of the camera, various functions can be activated and setting can be changed from the menus.

Menu type

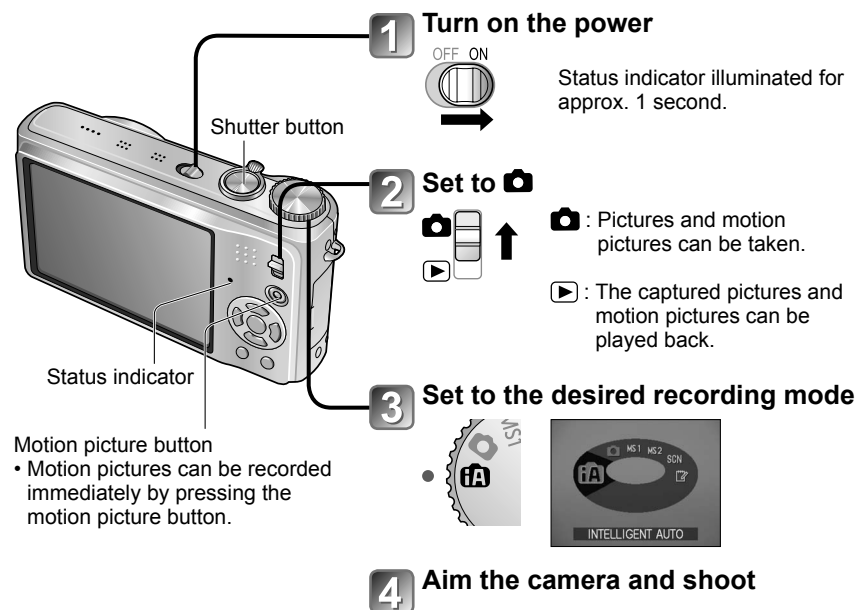
REC menu MOTION PICTURE menu TZ7 TZS3	* TZ7 TZS3	TZ6 ZS1
Changing image preferences • Make settings such as white balance, sensitivity, aspect ratio, and picture size.	REC menu REC PICTURE SIZE 1234 QUALITY 10M ASPECT RATIO 4:3 ISO INTELLIGENT ISO OFF SENSITIVITY AUTO SELECT EXIT MOTION PICTURE menu MOTION PICTURE 13 REC MODE REC QUALITY SH WHITE BALANCE AWB iEXPOSURE OFF AF MODE SELECT EXIT	REC menu REC PICTURE SIZE 1234 QUALITY 10M ASPECT RATIO 4:3 ISO INTELLIGENT ISO OFF SENSITIVITY AUTO SELECT EXIT
SETUP menu Making the camera more convenient to use • Make settings for ease of use such as adjusting the clock and changing the beep sounds.	SETUP 12345 CLOCK SET WORLD TIME TRAVEL DATE BEEP VOLUME LEVEL 3 SELECT EXIT	SETUP 12345 CLOCK SET WORLD TIME TRAVEL DATE BEEP VOLUME LEVEL 3 SELECT EXIT
MODE PLAYBACK MODE menu Viewing recorded pictures • Choose a playback type to see slideshows or just your favourite pictures.	PLAYBACK MODE NORMAL PLAY SLIDE SHOW MODE PLAY CATEGORY PLAY FAVORITE PLAY SELECT SET	PLAYBACK MODE NORMAL PLAY SLIDE SHOW CATEGORY PLAY FAVORITE PLAY SELECT SET
PLAYBACK menu Using your pictures • Make settings for using the images you have taken, including protecting, trimming, and handy settings for printing your pictures (DPOF).	PLAYBACK 123 CALENDAR TITLE EDIT TEXT STAMP RESIZE TRIMMING SELECT EXIT	PLAYBACK 123 CALENDAR TITLE EDIT TEXT STAMP RESIZE TRIMMING SELECT EXIT

* REC/PLAY switch

● Menu items displayed vary according to mode dial setting.

Basic shooting operation

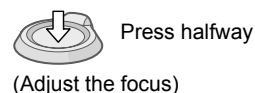
Please set the clock before shooting (P.14).



■ Taking still pictures

Press the shutter button

① Gently press the shutter button



② Press and hold the shutter button to take picture



■ Recording motion pictures

Press the motion picture button

① Press the motion picture button to start recording



② Press the motion picture button again to finish recording



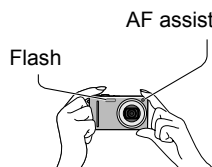
• Motion pictures cannot be recorded in (CLIPBOARD mode).

Basic shooting operation

TZ7 ZS3 (Continued)

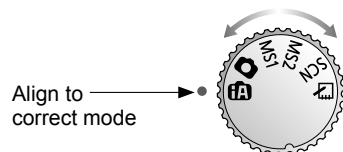
Please set the clock before shooting (P.14).

Holding the camera/Direction detection function



- Stand with your arms close to your body and with your legs apart.
- Do not touch the lens.
- Do not block the microphone when recording audio. (P.9)
- Do not block the flash or the lamp. Do not look at it from close range.
- Pictures taken with camera held vertically can automatically be displayed vertically in playback. (Only when 'ROTATE DISP.' is set to 'ON') Pictures may not be able to be displayed vertically if taken with camera facing upwards or downwards. Motion pictures cannot be displayed vertically during playback.

Mode dial



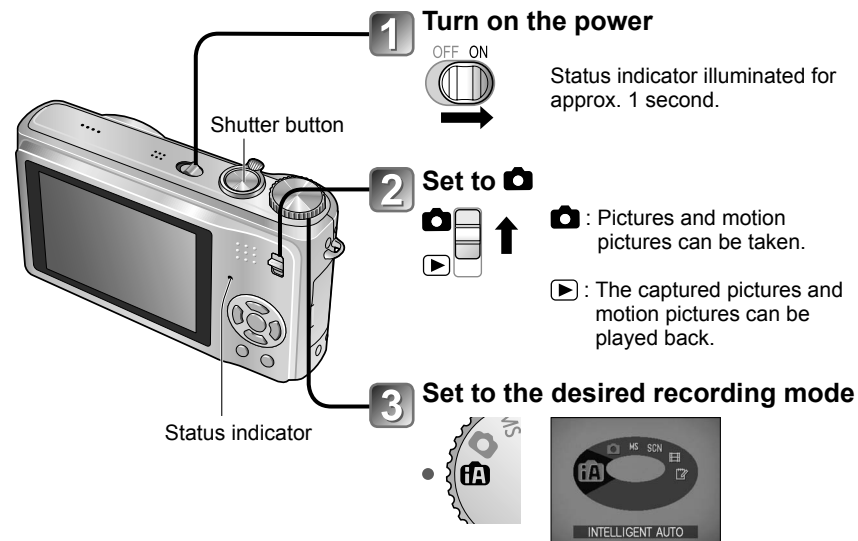
The current mode will be displayed on the LCD monitor when the mode dial is turned.

iA	INTELLIGENT AUTO Mode	Take images with automatic settings (P.21).
MS1	MY SCN MODE	Taking images in frequently-used scene modes.
SCN	SCENE MODE	Take images according to scene.
CLIPBOARD	CLIPBOARD Mode	Take pictures as memos.

Basic shooting operation

TZ6 ZS1

Please set the clock before shooting (P.14).



4 Aim the camera and shoot (Press the shutter button)

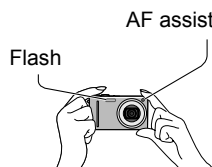
- 1** Press halfway
(Adjust the focus)
- 2** Press fully
When recording motion pictures, fully press the shutter button one more time to end recording.

Basic shooting operation

TZ6 ZS1 (Continued)

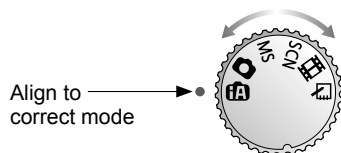
Please set the clock before shooting (P.14).

Holding the camera/Direction detection function



- Stand with your arms close to your body and with your legs apart.
- Do not touch the lens.
- Do not block the microphone when recording audio. (P.9)
- Do not block the flash or the lamp. Do not look at it from close range.
- Pictures taken with camera held vertically can automatically be displayed vertically in playback. (Only when 'ROTATE DISP.' is set to 'ON')
Pictures may not be able to be displayed vertically if taken with camera facing upwards or downwards. Motion pictures cannot be displayed vertically during playback.

Mode dial



Align to
correct mode



The current mode will be displayed on the LCD monitor when the mode dial is turned.

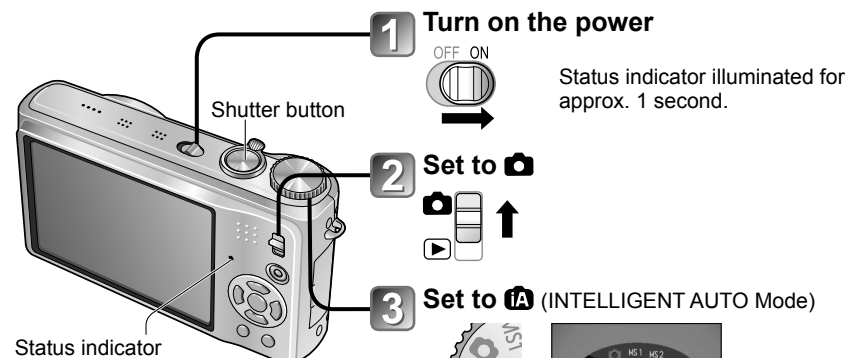
iA INTELLIGENT AUTO Mode	Take pictures with automatic settings (P.21).
Normal Picture Mode	Take pictures with customized settings (P.24).
MS MY SCENE MODE	Taking pictures in frequently-used scene modes.
SCN SCENE MODE	Take pictures according to scene.
MOTION PICTURE Mode	Take motion pictures.
CLIPBOARD Mode	Take pictures as memos.

Taking picture with automatic settings

'INTELLIGENT AUTO Mode'

Mode: **iA**

Optimum settings are made automatically from information such as 'face', 'movement', 'brightness', and 'distance' just by pointing the camera at the subject, meaning that clear pictures can be taken without the need to make settings manually.



Automatic scene detection

Camera reads scene when pointed at subject, and makes optimum settings automatically.

- During AF tracking (P.23), the optimum scene is automatically selected for the subject where the focus was locked (AF Lock).

Recognises 'i PORTRAIT'
Follows face to take clear, bright pictures.

Recognises 'i SCENERY'
Takes sharp pictures of near and far landscapes.

Recognises 'i MACRO'
Reads distance to take sharp pictures of close subjects

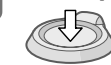
Recognises 'i NIGHT PORTRAIT'
Takes bright, natural pictures of people and night scenery. (Only with **iA**)

Recognises 'i NIGHT SCENERY'
Uses slow shutter speed to achieve natural colouring. (Only with **iA**)

Recognises 'i BABY'

Recognises movement
Reads subject movement to avoid blurring when scene does not correspond to any of the above.

4 Take a picture



Press halfway
(Adjust the focus)



Press fully



Focus display
(when focus aligned:
flashing → illuminated)

Recognized scene icon displayed in blue for 2 sec.

Taking picture with automatic settings

'INTELLIGENT AUTO mode' (Continued)

Mode: **iA**

■ Backlight compensation

Backlight refers to the light that shines from behind the subject. When this occurs, the subject appears darker, and so backlighting is automatically corrected by increasing the brightness of the entire image.

■ To use flash



Select either **iA** (Auto) or **iA** (forced flash off).

When using **iA**, **iA** (AUTO), **iA** (Auto/red-eye reduction) and **iA** (Slow sync./red-eye reduction) will be switched between automatically (see P.27 for details).

A second flash will be emitted in **iA** and **iA** for red-eye reduction.

● In addition to automatic scene detection, 'INTELLIGENT ISO', 'I.EXPOSURE', and 'BACKLIGHT COMPENSATION' will operate automatically.

● The following menu items may be set in INTELLIGENT AUTO Mode.

- **iA** (REC menu): 'PICTURE SIZE*', 'BURST', 'COLOR MODE*', 'FACE RECOG.*' **TZ7** **ZS3**
- **MOTION PICTURE** menu **TZ7** **ZS3**: 'REC MODE', 'REC QUALITY*', 'COLOR MODE*' **TZ7** **ZS3**
- **SETUP** menu*: 'CLOCK SET', 'WORLD TIME', 'BEEP*', 'LANGUAGE'

*1 Items that may be set differ from other recording modes.

*2 Other items in the SETUP menu will reflect settings made in other recording modes.

● According to the following conditions, different scene types may be determined for the same subject.

- Face contrast, conditions of subject (size, distance, colouring, movement), zoom ratio, sunset, sunrise, low brightness, jitter

● If desired scene type is not selected, we recommend manually selecting the appropriate recording mode.

● We recommend using a tripod and the self-timer with 'i NIGHT SCENERY' and 'i NIGHT PORTRAIT'.

● When jitter is small (e.g. using tripod) with 'i NIGHT SCENERY', shutter speed can reach a maximum of 8 seconds. Do not move the camera.

● The settings for the following functions are fixed.

- AUTO REVIEW: 2 SEC. • POWER SAVE: 5 MIN. • GUIDE LINE: **---**
- WHITE BALANCE: AWB • QUALITY: **---** (Fine) • STABILIZER: AUTO
- AF MODE: **iA** (Face detection)*1 • AF ASSIST LAMP: ON
- METERING MODE: **iA** (Multiple) • PRE AF: Q-AF

*1 **iA** (11-area-focusing) when face cannot be recognised

● The following functions cannot be used.

- 'HISTOGRAM', 'EXPOSURE', 'AUTO BRACKET', 'MULTI ASPECT' **TZ7** **ZS3**, 'WB ADJUST.', 'DIGITAL ZOOM', 'MIN. SHTR SPEED', 'AUDIO REC.'



e.g. Face too large - 'i PORTRAIT' becomes 'i MACRO'

Face Detection and Face Recognition

If the camera automatically identifies the scene and determines that people appear as subjects in the image (**iA** or **iA**), Face Detection is activated, and the focus and exposure are adjusted for the recognised faces.

■ Face Recognition **TZ7** **ZS3**

The faces of people who are taken frequently can be registered together with their names, ages, and other information.

If pictures are taken with 'FACE RECOG.' set to 'ON', priority is given to the focus and exposure adjustments of the faces close to those that have been registered. Also, the camera memorises detected faces during Face Detection, automatically recognises faces which are taken frequently, and displays them on the face registration screen.

- Face Recognition searches for faces close to those that have been registered. Correct recognition of faces cannot be guaranteed.
- In some cases, the camera may be unable to correctly distinguish between people with similar facial characteristics, such as parents and children and brothers and sisters.
- When using Face Recognition, the facial characteristics are extracted for performing recognition, and so this process takes longer than regular Face Detection.
- For subjects registered as newborns and infants (people with birthdays set to less than 3 years), **iA** is displayed, and the picture will be taken to give the skin a more healthy appearance.

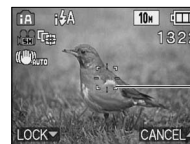
AF TRACKING

Even if a subject where the focus was locked (AF Lock) moves, the camera can continue to keep it in focus.

1 Set AF MODE to AF tracking



- To cancel AF tracking → Press **▲** again.



AF tracking frame

2 Align the AF tracking frame with the subject, and then lock.



- To cancel AF Lock → Press **▲**.
- The optimum scene is detected for the subject where the focus was locked (AF Lock).



AF Lock successful: Yellow
AF Lock failed: Red (flash)

- Face recognition will be inactive while using AF tracking.

Taking pictures with your own settings

'NORMAL PICTURE mode'

Mode:

Using REC menu to change settings and set up your own recording environment.

1 Turn on the power
Shutter button
Zoom lever
Status indicator illuminated for approx. 1 second.

2 Set to

3 Set to (NORMAL PICTURE mode)

4 Take a picture
Press halfway (Adjust the focus)
AF area (Aligns focus with subject; when complete: red/white → green)
Press fully

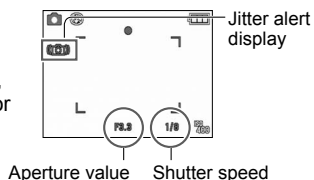
■ To use zoom

➡ (P.26)

■ To use flash

➡ (P.27)

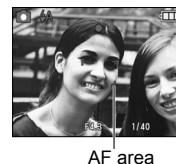
- When (jitter alert) is displayed, use the optical image stabilizer, a tripod, or the self-timer.
- If aperture value or shutter speed is displayed in red, correct exposure has not been achieved. Use flash or change 'SENSITIVITY' settings.



Align focus for desired composition

Useful when subject is not in centre of picture.

1 First adjust focus according to subject

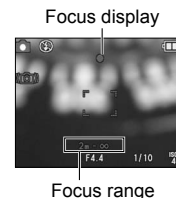


- Subjects/environments which may make focusing difficult:
 - Fast-moving or extremely bright objects, or objects with no colour contrast.
 - Taking pictures through glass or near objects emitting light. In dark, or with significant jitter.
 - When too close to object or when taking pictures of both distant and close objects together in the same picture.
- We recommend using the 'Face detection' function when taking pictures of people.

2 Return to desired composition



- The focus display flashes and beep sounds when focus is not aligned.
Use the focus range displayed in red as a reference.
Even if the focus display is lit, the camera may be unable to bring the subject into focus if it is out of range.
- AF area is displayed larger in dark conditions or when using digital zoom.
- Most displays are temporarily cleared from screen when the shutter button is pressed halfway.

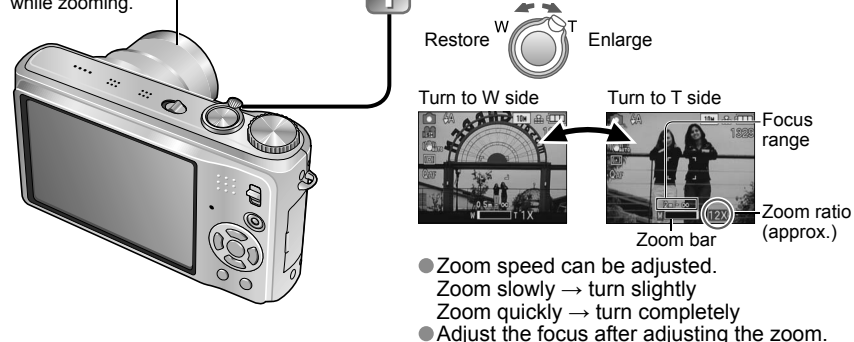


Taking pictures/motion pictures with zoom

Mode:

You can zoom in up to 12 times with 'optical zoom', and up to 21.4 times with 'Extra optical zoom' (pictures only) with lower picture quality. You can also use 'digital zoom' to zoom in even further.

Do not block the lens barrel movement while zooming.



Optical zoom and extra optical zoom (EZ)

Automatically switches to 'optical zoom' when using maximum picture size, and to 'extra optical zoom' (for further zooming) otherwise. (EZ is short for 'extra optical zoom'.)

Optical zoom

— Zoom bar

































Max. enlargement: 12 x

Extra optical zoom

(EZ displayed)

Max. enlargement: 14.3 x - 21.4 x
(Varies according to picture size.)

Maximum zoom ratios by picture size

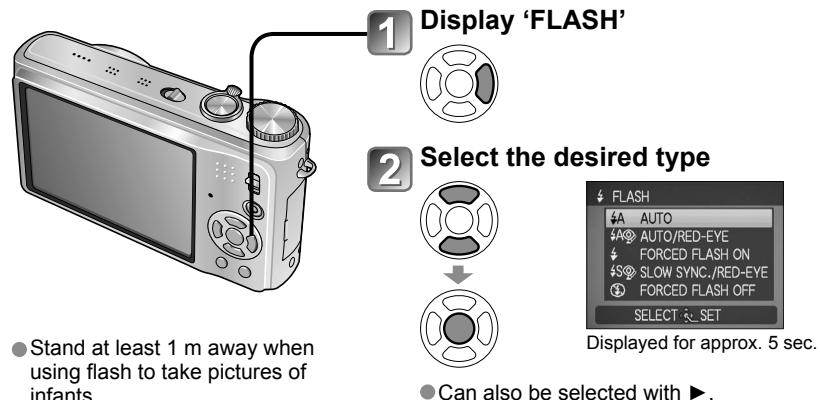
		Optical zoom	Extra optical zoom				
PICTURE SIZE 		10 M	7 M 	5 M 	3 M 	2 M 	0.3 M 
		9.5 M	6.5 M 	4.5 M 	3 M 	2.5 M 	
		9 M	6 M 	4.5 M 	2.5 M 	2 M 	
Max. enlargement		12 x	14.3 x	17.1 x	21.4 x		
PICTURE SIZE 		10 M	7 M 	5 M 	3 M 	2 M 	0.3 M 
		9 M	6 M 	4.5 M 	2.5 M 		
		7.5 M	5.5 M 	3.5 M 	2 M 		
Max. enlargement		12 x	14.3 x	17.1 x	21.4 x		

What is Extra optical zoom (EZ)?

If, for example, set to '3M

Taking pictures with flash

Mode:



Type, operations	Uses
AUTO • Automatically judges whether or not to flash	Normal use
AUTO/RED-EYE reduction* • Automatically judges whether or not to flash (reduce red-eye)	Taking pictures of subjects in dark places
FORCED FLASH ON • Always flash	Taking pictures with backlight or under bright lighting (e.g. fluorescent)
FORCED ON/RED-EYE reduction* (For 'PARTY' and 'CANDLE LIGHT' scene modes only) • Always flash (reduce red-eye)	Taking pictures of subjects against a nightscape (tripod recommended)
SLOW SYNC./RED-EYE reduction* • Automatically judges whether or not to flash (reduce red eye; slow shutter speed to take brighter pictures)	Taking pictures of subjects against a nightscape (tripod recommended)
FORCED FLASH OFF • Never flash	Places where flash use is prohibited

*1 When **digital red-eye correction** function operates, red-eye will be detected and corrected automatically when the flash is emitted.
As two flashes will be emitted, do not move until after the second flash (correction effect may vary according to person). Interval between flashes varies according to brightness of subject.

Shutter speeds are as follows:

- : 1/30*2 - 1/2000th
- : 1/8*2*3 - 1/2000th

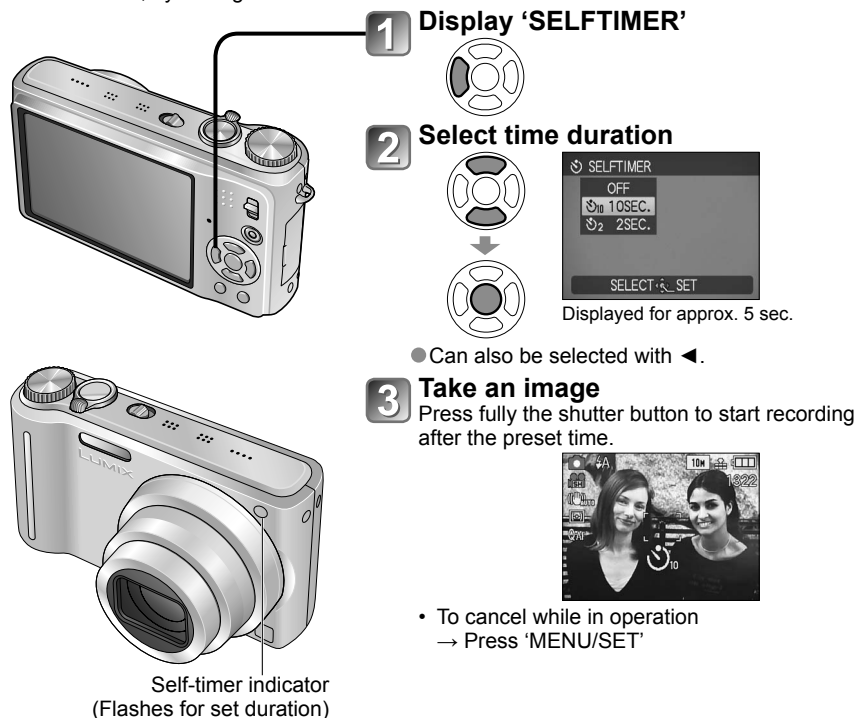
*2 Varies according to 'MIN. SHTR SPEED' setting.

*3 Max. 1/4 sec. when 'INTELLIGENT ISO' in use; max. 1 sec. when 'STABILIZER' set to 'OFF' or when blur is insignificant. Also varies according to 'INTELLIGENT AUTO' mode, 'SCENE MODE', zoom position.

Taking images with self-timer

Mode: **TZ7** **ZS3** **IA** **MS1MS2 SCN** **TZ6** **ZS1** **IA** **MS SCN**

We recommend using a tripod. This is also effective for correcting jitter when pressing the shutter button, by setting the self timer to 2 seconds.

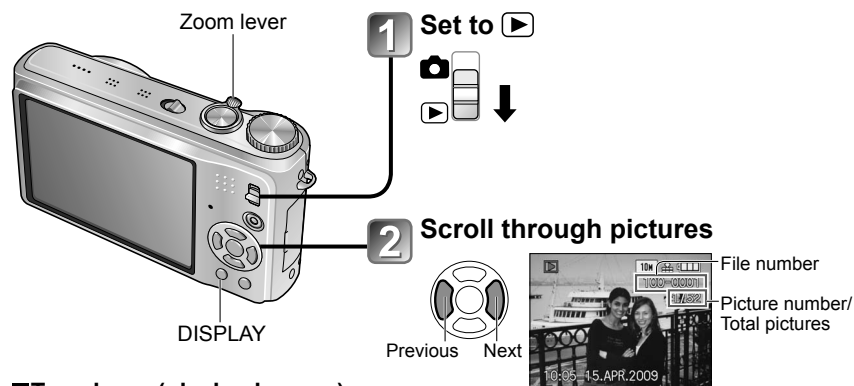


- When set to BURST, three pictures are taken. When set to the 'FLASH BURST' scene mode, five pictures are taken.
- Focus will be automatically adjusted immediately before recording if shutter button is pressed fully here.
- After self-timer lamp stops flashing, it may then be lit for AF assist lamp.
- This function cannot be used in the 'UNDERWATER' and 'HI-SPEED BURST' scene modes, or in **PI** (MOTION PICTURE mode) **TZ6** **ZS1**.
- In some modes, only '2SEC.' or only '10SEC.' may be selected.
INTELLIGENT AUTO mode: '10SEC.'
CLIPBOARD mode, 'SELF PORTRAIT' scene mode: '2SEC.'

Viewing your pictures (NORMAL PLAY)

REC/PLAY switch: **▶**

When there is no card inserted, the pictures played back from the built-in memory. (Clipboard pictures can only be played back in CLIPBOARD mode.)



■ To enlarge (playback zoom)



Current zoom position (displayed for 1 sec.)

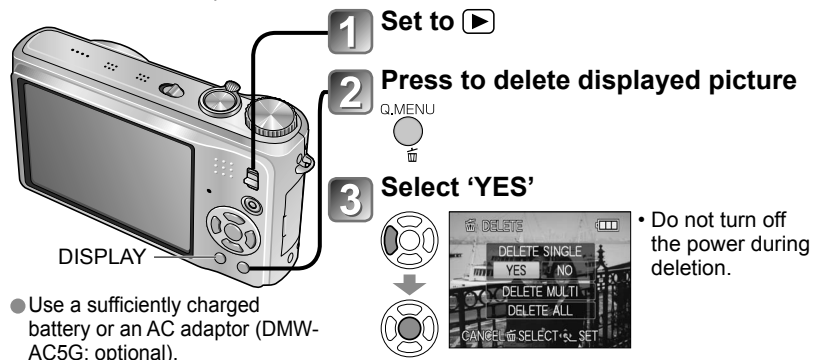
- Zoom ratio: 1x/2x/4x/8x/16x
- To reduce zoom → Turn lever towards W side
- Move zoom position → ▲ ▼ ◀ ▶

- Hold down to quickly scroll forwards/backwards.
(Only file numbers change while held down; picture is displayed when released)
Scroll speed increases the longer you press. (Speed may vary according to playback conditions)
- If file number is not displayed, press display button.
- After the final picture, display returns to the first picture.
- Some pictures edited on computer may not be able to be viewed on this camera.
- If the REC/PLAY switch is moved from **▶** to **▶** while the power is on, the lens barrel will be retracted after approx. 15 seconds.
- This camera is compliant with the unified DCF (Design rule for Camera File system) standard formulated by the Japan Electronics and Information Technology Industries Association (JEITA), and with Exif (Exchangeable image file format). Files that are not DCF-compliant cannot be played back.

Deleting pictures

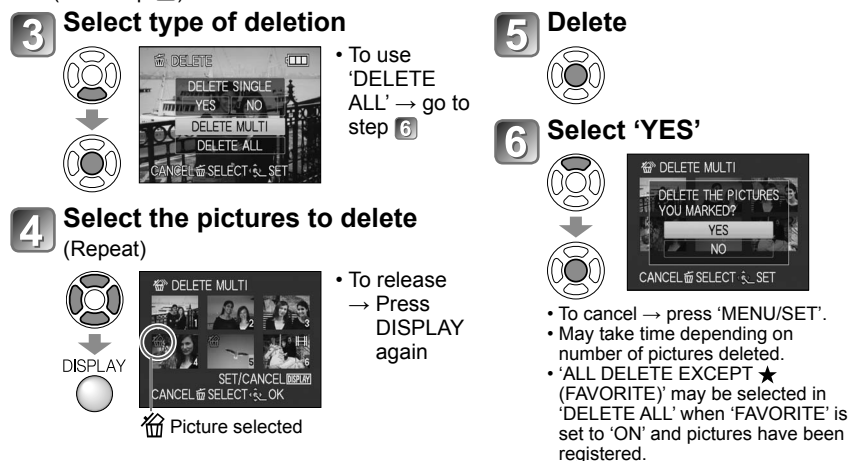
REC/PLAY switch:

Pictures deleted will be from card if card is inserted, or from built-in memory if the card is not inserted. Deleted pictures cannot be recovered.



To delete multiple (up to 50) or all pictures

(after step 2)



- Pictures cannot be deleted in the following cases:
 - Protected pictures
 - Card switch is in 'LOCK' position. • Pictures not of DCF standard (P.29)
- Motion pictures can also be deleted.
- To delete clipboard pictures, set mode dial to .
- To delete all data including protected images, perform FORMAT.

Reading the Operating Instructions (PDF format)

Please also refer to Operating Instructions (PDF format) recorded on the CD-ROM containing the Operating Instructions (supplied). You can learn about advanced operation methods and check the Troubleshooting.

■ For Windows

- 1 Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).
- 2 Select the desired language and then click [Operating Instructions] to install.
- 3 Double click the 'TZ7_ZS3_TZ6_ZS1 Operating Instructions' shortcut icon on the desktop.

■ When the Operating Instructions (PDF format) will not open

You will need Adobe Acrobat Reader 4.0 or later to browse or print the Operating Instructions (PDF format). Follow the instructions below for your OS to install it.

• If using Windows 2000 SP2 or later/XP/Vista

Insert the CD-ROM containing the Operating Instructions (supplied), click [Adobe(R) Reader(R)] and then follow the messages on the screen to install.

• If using Windows 98/98SE/Me

Download and install a version of Adobe Reader that you can use with your OS from the following Web Site.
<http://www.adobe.com/products/acrobat/readstep2.html>

■ To uninstall the Operating Instructions (PDF format)

Delete the PDF file from the 'Program Files\Panasonic\Lumix\I' folder. When the contents in the Program Files folder cannot be displayed, click the [Show the contents of this folder] to display them.

■ For Macintosh

- 1 Turn the PC on and insert the CD-ROM containing the Operating Instructions (supplied).
- 2 Open the 'MANUAL' folder in the CD-ROM and then copy the PDF file with the desired language inside the folder.
- 3 Double click the PDF file to open it.

Specifications DMC-TZ7/ DMC-ZS3

Digital Camera: Information for your safety

Power Source	DC 5.1 V
Power Consumption	When recording: 1.3 W When playing back: 0.6 W
Camera effective pixels	10,100,000 pixels
Image sensor	1/2.33" CCD, total pixel number 12,700,000 pixels Primary colour filter
Lens	Optical 12 x zoom f=4.1 mm to 49.2 mm (35 mm film camera equivalent: 25 mm to 300 mm)/ F3.3 to F4.9
Digital zoom	Max. 4 x
Extra optical zoom	Max. 21.4 x
Focus	Normal/AF Macro/Macro zoom Face detection/AF tracking/11-area-focusing/ 1-area-focusing (High speed)/1-area-focusing/Spot-focusing
Focus range	
Normal/Motion picture	50 cm (Wide)/2 m (Tele) to ∞
Macro/Intelligent Auto/Clipboard	3 cm (Wide)/1 m (Tele) to ∞ (2 m unless max.T)
Scene mode	There may be difference in above settings.
Shutter system	Electronic shutter + Mechanical shutter
Motion picture recording	<ul style="list-style-type: none"> ● AVCHD Lite 1280 x 720 pixels 50p recordings* (Only when using an SD Memory Card) * CCD output is at 25fps Approx. 17 Mbps/Approx. 13 Mbps/Approx. 9 Mbps (VBR), with stereo audio ● Motion JPEG 1280 x 720 pixels* / 848 x 480 pixels* / 640 x 480 pixels* / 320 x 240 pixels (* Only when using an SD Memory Card) 30 frames/second with stereo audio
Burst recording	
Burst speed	2.3 pictures/second (Burst), Approx. 1.8 pictures/second (Unlimited)
Number of recordable pictures	Max. 5 pictures (Standard), max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited).
Hi-speed burst	
Burst speed	Approx. 10 pictures/second (Speed priority) Approx. 6 pictures/second (Image priority)
Number of recordable pictures	Approx. 15 pictures (When using the built-in memory, immediately after formatting) Max. 100 pictures (When using a card, it may differ depending on the type of card and the recording conditions)
ISO sensitivity	AUTO/80/100/200/400/800/1600 [HIGH SENS.] mode: 1600 - 6400
Shutter speed	8 to 1/2000 th [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
White balance	AUTO/Daylight/Cloudy/Shade/Halogen/White set
Exposure (AE)	AUTO (Program AE) Exposure compensation (1/3 EV Step, -2 EV to +2 EV)
Metering mode	Multiple/Centre weighted/Spot

LCD monitor	3.0" low-temperature polycrystalline TFT LCD (Approx. 460,800 dots) (field of view ratio about 100 %)
Flash	Flash range: (ISO AUTO) Approx. 60 cm to 5.3 m (Wide) AUTO, AUTO/Red-eye reduction, Forced flash ON (Forced flash ON/ Red-eye reduction), Slow sync./Red-eye reduction, Forced flash OFF
Microphone	Stereo
Speaker	Monaural
Recording media	Built-in Memory (Approx. 40 MB)/SD Memory Card/SDHC Memory Card/ MultiMediaCard (Still pictures only)
Picture size	
Still picture	When the aspect ratio setting is [4:3] 3648 x 2736 pixels / 3072 x 2304 pixels / 2560 x 1920 pixels / 2048 x 1536 pixels / 1600 x 1200 pixels / 640 x 480 pixels
	When the aspect ratio setting is [3:2] 3776 x 2520 pixels / 3168 x 2112 pixels / 2656 x 1768 pixels / 2112 x 1408 pixels / 2048 x 1360 pixels
	When the aspect ratio setting is [16:9] 3968 x 2232 pixels / 3328 x 1872 pixels / 2784 x 1568 pixels / 2208 x 1248 pixels / 1920 x 1080 pixels
Motion pictures	1280 x 720 pixels* / 848 x 480 pixels* / 640 x 480 pixels* / 320 x 240 pixels (* Only when using an SD Memory Card)
Quality	Fine/Standard
Recording file format	
Still Picture	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard)/DPOF corresponding
Still pictures with audio	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard) + QuickTime
Motion pictures	AVCHD Lite/QuickTime Motion JPEG
Interface	Digital: USB 2.0 (High Speed) Analogue video/audio: NTSC/PAL Composit (Switched by menu), Audio line output (stereo)
Terminal	HDMI: HDMI mini cable (type C) AV/DIGITAL/MULTI: Dedicated jack (14 pin)
Dimensions (excluding the projection part)	Approx. 103.3 mm (W) x 59.6 mm (H) x 32.8 mm (D)
Mass	Excluding card and battery: Approx. 206 g With card and battery: Approx. 229 g
Operating temperature	0 °C to 40 °C
Operating humidity	10 % to 80 %

Battery charger

(Panasonic DE-A66B (DMC-TZ7(GC/GJ), DMC-ZS3GH), DE-A66E (DMC-TZ7SG)):

Information for your safety

Output	CHARGE 4.2 V --- 0.65 A
Input	110 V to 240 V 50/60Hz, 0.2 A (DMC-TZ7(GC/GJ), DMC-ZS3GH) 100 V to 240 V 50/60Hz, 0.2 A (DMC-TZ7SG)

Battery Pack (lithium-ion)

(Panasonic DMW-BCG10E): Information for your safety

Voltage/capacity (Minimum)	3.6 V / 895 mAh
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Specifications DMC-TZ6/ DMC-ZS1

Digital Camera: Information for your safety

Power Source	DC 5.1 V
Power Consumption	When recording: 1.2 W When playing back: 0.6 W
Camera effective pixels	10,100,000 pixels
Image sensor	1/2.5" CCD, total pixel number 10,300,000 pixels Primary colour filter
Lens	Optical 12 x zoom f=4.1 mm to 49.2 mm (35 mm film camera equivalent: 25 mm to 300 mm)/ F3.3 to F4.9
Digital zoom	Max. 4 x
Extra optical zoom	Max. 21.4 x
Focus	Normal/AF Macro/Macro zoom Face detection/AF tracking/11-area-focusing/ 1-area-focusing (High speed)/1-area-focusing/Spot-focusing
Focus range	
Normal/Motion picture	50 cm (Wide)/2 m (Tele) to ∞
Macro/Intelligent Auto/ Clipboard	3 cm (Wide)/1 m (Tele) to ∞ (2 m unless max.T)
Scene mode	There may be difference in above settings.
Shutter system	Electronic shutter + Mechanical shutter
Motion picture recording	848 x 480 pixels* / 640 x 480 pixels* / 320 x 240 pixels (* Only when using an SD Memory Card) 30 frames/second with audio
Burst recording	
Burst speed	2.5 pictures/second (Burst), Approx. 2 pictures/second (Unlimited)
Number of recordable pictures	Max. 5 pictures (Standard), max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited).
Hi-speed burst	
Burst speed	Approx. 10 pictures/second (Speed priority) Approx. 7 pictures/second (Image priority)
Number of recordable pictures	Approx. 15 pictures (When using the built-in memory, immediately after formatting) Max. 100 pictures (When using a card, it may differ depending on the type of card and the recording conditions)
ISO sensitivity	AUTO/80/100/200/400/800/1600 [HIGH SENS.] mode: 1600 - 6400
Shutter speed	8 to 1/2000 th [STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
White balance	AUTO/Daylight/Cloudy/Shade/Halogen/White set
Exposure (AE)	AUTO (Programme AE) Exposure compensation (1/3 EV Step, -2 EV to +2 EV)
Metering mode	Multiple/Centre weighted/Spot

LCD monitor	2.7" amorphous silicon TFT LCD (Approx. 230,400 dots) (field of view ratio about 100 %)
Flash	Flash range: (ISO AUTO) Approx. 60 cm to 5.3 m (Wide) AUTO, AUTO/Red-eye reduction, Forced flash ON (Forced flash ON/ Red-eye reduction), Slow sync./Red-eye reduction, Forced flash OFF
Microphone	Monaural
Speaker	Monaural
Recording media	Built-in Memory (Approx. 40 MB)/SD Memory Card/SDHC Memory Card/ MultiMediaCard (Still pictures only)
Picture size	
Still picture	When the aspect ratio setting is [4:3] 3648 x 2736 pixels / 3072 x 2304 pixels / 2560 x 1920 pixels / 2048 x 1536 pixels / 1600 x 1200 pixels / 640 x 480 pixels When the aspect ratio setting is [3:2] 3648 x 2432 pixels / 3072 x 2048 pixels / 2560 x 1712 pixels / 2048 x 1360 pixels When the aspect ratio setting is [16:9] 3648 x 2056 pixels / 3072 x 1728 pixels / 2560 x 1440 pixels / 1920 x 1080 pixels
Motion pictures	848 x 480 pixels* / 640 x 480 pixels* / 320 x 240 pixels (* Only when using an SD Memory Card)
Quality	Fine/Standard
Recording file format	
Still Picture	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard)/DPOF corresponding
Still pictures with audio	JPEG (based on Design rule for Camera File system, based on Exif 2.21 standard) + QuickTime
Motion pictures	QuickTime Motion JPEG
Interface	Digital: USB 2.0 (High Speed) Analogue video/audio: NTSC/PAL Composit (Switched by menu), Audio line output (monaural)
Terminal	AV/DIGITAL/MULTI: Dedicated jack (14 pin)
Dimensions (excluding the projection part)	Approx. 103.3 mm (W) x 59.6 mm (H) x 32.8 mm (D)
Mass	Excluding card and battery: Approx. 206 g With card and battery: Approx. 229 g
Operating temperature	0 °C to 40 °C
Operating humidity	10 % to 80 %

Battery charger

(Panasonic DE-A66B): Information for your safety

Output	CHARGE 4.2 V === 0.65 A
Input	110 V to 240 V 50/60Hz, 0.2 A

Battery Pack (lithium-ion)

(Panasonic DMW-BCG10E): Information for your safety

Voltage/capacity (Minimum)	3.6 V / 895 mAh
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